

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
Before the Board of Patent Appeals and Interferences**

In re Patent Application of

EARDLEY

Atty. Ref.: DJZ -36-1905

Serial No. 10/537,896

TC/A.U.: 2456

Filed: June 7, 2005

Examiner: Tom Chang

For: A METHOD OF ROUTING PACKETS IN A PACKET NETWORK  
(AS AMENDED)

\* \* \* \* \*

March 19, 2010

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REPLY BRIEF**

Appellant hereby submits this Reply Brief under the provisions of 37 C.F.R. 41.41 in response to the Examiner's Answer mailed February 24, 2010. The arguments set forth in the Appeal Brief dated January 4, 2010 are incorporated herein. The following arguments are presented in response to the Examiner's Answer and to further clarify Appellant's previous positions.

**ARGUMENT**

**A. Claim 11 is Directed to Statutory Subject Matter Under 35 USC § 101**

Appellant acknowledges the Examiner's indication in the February 24, 2010 Examiner's Answer that the rejection of claim 11 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter has been withdrawn.

**B. Claims 1-3 and 5-11 Are Not Anticipated Under 35 USC § 102 by Karino**

Claims 1 and 9

Claims 1-3 and 5-11 stand rejected under 35 U.S.C. §102(e) as allegedly being "anticipated" over Karino et al. (U.S. Patent No. 7,327,671). This rejection is erroneous and should be reversed at least for the following reasons.

Karino fails to disclose at least the features described below regarding independent claims 1 and 9. Further, the Examiner is fundamentally misconstruing the language of claims 1 and 9, as also further described below.

Karino fails to disclose "*operating each of said intermediate packet nodes to: determine, on receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not; and a) if the packet is determined to be from a node not on said chain, copying the packet and routing said copy along one of said routing paths and routing said packet along the other of said routing paths; and b) if the packet is determined to be from another node on said chain, route said packet along said chain only in the direction in which it is currently travelling,*" (emphasis added) as required by independent claim 1. Karino also fails to disclose "*each intermediate packet node being arranged in operation to determine, on receiving a packet destined for said mobile node, whether said packet is from another node on said chain or not and*

a) if the packet is determined to be from a node not on said chain, copying the packet and routing said copy along one of said routing paths and routing said packet along the other of said routing paths; and b) if the packet is determined to be from another node on said chain, route said packet along said chain only in the direction in which it is currently travelling,” (emphasis added), as required by independent claim 9.

Karino never operates each of the plurality of intermediate packet nodes to determine whether, on receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not. Instead, Karino utilizes a bicast router to always bicast the packet to an originally linked base station and to an adjacent base station (see col. 30, ll. 43-49 and col. 32, ll. 41-62, for example), unless the modification of a branch point retrieving message has been made, and the bicast router receives a bicast release message, due to the mobile host moving and another base station other than the defined base station transmitting the most intensive radio wave, at which point it will transmit only along the primary communication route (see col. 33, ll. 30-63).

Thus, the Karino bicast router does not determine whether the packet is from another node on said chain or not, but instead makes its routing determination based on whether it has received a bicast release message or not. The router R2” of Karino does not “determine, upon receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not” as recited in claims 1 and 9, but instead “...always transfers the packet to not only the originally-linked base station BS2 but also to the originally-unlinked base station BS3...” (col. 32, ll. 49-51), unless the modification of a branch point retrieving message has been made, and a bicast release message is received at the router R2”. Karino contains no

disclosure that the router R2'' ever determines whether a received packet is from another node on said chain or not.

In instances where no broadcast release message is received, Karino makes no determination at all when receiving packets at the routers destined for the mobile host, but instead broadcasts the packets along to not only the originally-linked base station BS2 but also to the originally-unlinked base station BS3. In instances where a broadcast release message is received, Karino will transmit only along the primary communication route. The determination of whether to broadcast the packet or to unicast the packet is not made based upon a determination of whether the packet is from another node on said chain or not, but is instead based on whether a broadcast release message is received. The Examiner even emphasizes this point when he states "To reiterate what has already been discussed, the broadcast release message causes the router to make the determination that the path of a packet should only follow a single chain." See Examiner's Answer, page 13, lines 4-6.

The Examiner has misconstrued the recitation of "determine, upon receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not" as recited in claims 1 and 9 of the application on appeal. While an Examiner may give claim terms their broadest reasonable interpretation, such an interpretation must be based on the claim language in light of the specification as it would be interpreted by one of ordinary skill in the art.

*In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827 (Fed. Cir. 2004).

However, the Examiner has misconstrued "determine, upon receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not" as recited in claims 1 and 9, not based on the actual words of the claims 1 and 9, or based on the specification as it would be interpreted by one of ordinary skill in the art, but instead based upon the teachings of

the very prior art reference (Karino) the Examiner is using to assert Appellants claims are anticipated.

The Advisory Action alleges on page 2 that the “determine, upon receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not” as required by claim 1, “merely describes a node determining whether a packet is meant to travel on the originally established path because the packet only needs to travel on a previously established path/chain since the mobile host has not moved to a new location that requires rerouting of the packets (determination a in claim 1), or that the transmission along 2 paths is required since the mobile host has moved out of range of the original established path/chain (determination b in claim 1).” Claims 1 and 9 do not recite the misconstrued language recited in the Advisory Action of “a node determining whether a packet is meant to travel on the originally established path because the packet only needs to travel on a previously established path/chain since the mobile host has not moved to a new location that requires rerouting of the packets” or “that the transmission along 2 paths is required since the mobile host has moved out of range of the original established path/chain.”

In the Examiner’s Answer on page 9, the Examiner indicates:

“The Examiner interpreted the determining whether a packet is from a node on said chain, as determining at a node whether the proper path for a packet to travel is a single chain of nodes or if the proper path requires a the packet to be broadcast (2 paths after R2 determine it is proper an available for broadcast Col 31 Lines 19-23). Such an interpretation was made by the examiner because it is clear from the actions of a) and b) (or more specifically the need for broadcast for situation b)) that the purpose of the determination is to determine if the packet should only travel in one path or needs to be copied and propagated on two paths (broadcast).”

The recitation of “determine, upon receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not” in claims 1 and 9 should be given

its plain and ordinary meaning: a determination is made, upon receipt of a packet destined for the mobile node, as to whether the packet is from another node on the chain. Further, the specification does not contain any disclosure that supports the Examiner's improper construction. In making this improper construction, the Examiner refers not to the language of the claims or to Appellant's specification, but instead refers to disclosures in Karino about whether the bicast router R2 is proper and available to bicast and whether the packet should be bicast or unicast. Neither the plain and ordinary meaning of the claims on appeal nor the specification support the improper construction given by the Examiner.

Additionally, Karino does not "determine, *upon receipt of a packet destined for said mobile node*, whether said packet is from another node on said chain or not" as recited in claims 1 and 9 on appeal. Even if Karino did disclose determining whether said packet is from another node on said chain or not, which Karino does not, Karino does not make its determination about whether to route the packet in a bicast manner or a unicast manner "upon receipt of a packet destined for said mobile node." Instead, the determination is made only upon receipt of a bicast release message at the router. The bicast release message is not a packet destined for the mobile host MH, so Karino makes his routing determination to unicast not upon receipt of a packet destined for the mobile node, but instead upon receipt of the bicast release message.

In response to this argument, the Examiner states that he never equated the branch point retrieving message to be equivalent to the data packets that are sent to the mobile host. See Examiner's Answer, page 11. However, in making this statement, the Examiner's position fails to consider that claims 1 and 9 on appeal recite that the determination of whether said packet is from another node on said chain or not is made *upon receipt of a packet destined for said mobile node*, not upon receipt of a bicast release message or a branch point retrieving message.

Further, claims 1 and 9 require operating *each* of said intermediate packet nodes to: determine, on receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not (emphasis added). The Final Rejection, Advisory Action and Examiner's Answer point to no such determination being made by routers R4 and R5 (asserted to be intermediate packet nodes). Neither R4 nor R5 will determine the origination of the packet but will follow their routing information in that R4 routes data from R2 to BS2 and R5 routes data from R2 to BS3. In fact, R4 and R5 are not even bicast routers, and thus are not capable of "if the packet is determined to be from a node not on the chain, copying the packet and routing said copy along one of said routing paths and routing said packet along the other of said routing paths", as recited in claims 1 and 9 on appeal.

Furthermore, appealed claims 1 and 9 require that if the packet is determined to be from a node not on the chain, copy the packet and routing the copy along one of the routing paths and routing the packet along another of said routing paths. In contrast, in Karino, when a packet is received at router R2" from host network 1 (not on the R2", R4", R5" chain defined in the Final Rejection) after the bicast release message has been received, the router will transfer the packet along the primary communication route only, and thus not "copy the packet and routing the copy along one of the routing paths and routing the packet along another of said routing paths" as required by claims 1 and 9. This example makes it evident that the routing determination is not based on whether the packet is received from a node on the chain as recited in claims 1 and 9 on appeal, but is instead merely based on whether the bicast release message has been received or not.

For the above reasons, claims 1 and 9 are not anticipated by Karino. Claims 2-3, 5-8 and 10 are not anticipated based on their dependence on claims 1 or 9. It is asserted based on the above that the rejection is erroneous and should be reversed.

**C. Claim 4 is Not Obvious Under 35 USC § 103 by Karino in view of O'Neill.**

With respect to claim 4, O'Neill does not solve the deficiencies of Karino noted above. Accordingly, claim 4 patentably defines over Karino and O'Neill taken singly or in combination. Accordingly, the rejection is erroneous and should be reversed.

**CONCLUSION**

In conclusion it is believed that the application is in clear condition for allowance; therefore, early reversal of the Final Rejection and passage of the subject application to issue are earnestly solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_ /David J. Zibelli/  
\_\_\_\_\_  
David J. Zibelli  
Reg. No. 36,394

DJZ:vjw  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100